

Original communication

Severity of injuries among sexual assault victims

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Abstract

It is generally accepted that victims of sexual assault sustain bodily injury. This study's objective was to determine specific characteristics and severity of injuries among victims of sexual violence in Belgrade. Retrospectively, we analyzed a subgroup of victims of sexual violence that was legally processed over a five-year period. We evaluated 113 cases of sexual crimes selected from the District Court of Belgrade in order to analyze the medical records. All victims were female, at average 24.1 years old (range 5–80 years). In more than half of the cases (52%) evaluated, a medical examination was completed on the day of assault, while 84% took place within 72 hours post-assault. Due to delayed referral, body examination was not conducted on 12 victims (10.6%). We noted one or more extra-genital injuries in 64 victims (63.4%), no injuries in 36 victims (35.6%), whereas for one victim the medical records were inconclusive. Injuries, predominantly bruises, were located on limbs (32%), face (23%), and torso (7%). Abrasions and contusions were less frequently present, while two victims sustained lacerations. The Clinical Injury Extent Score was used to rate the physical severity of the assault. The majority of victims (44%) sustained light injuries, 18% were moderate, while one victim had severe injuries.

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1. Introduction

Sexual violence may be regarded as a global problem; not only geographically, but also in terms of age and gender. It is a harsh reality for millions of victims worldwide, predominantly women.

Sexual violence plays a role in a more broader category defined by WHO as interpersonal violence defined as: "The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maledvelopment or deprivation".¹

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It is estimated that one out of five women experience sexual aggression during her lifetime.² Although it is widely accepted that sexual violence is a global problem, and that it is present in every social group, it is difficult to determine the real magnitude of sexual violence. Statistical data regarding sexual violence is limited in particular by the fact that many cases remain unreported, and therefore unrecorded. Some published data indicates an increasing number of registered sexual crime cases against women in India from 67,072 in 1989 to 84,000 in 1993. For example, in 1995 alone, more than 25,000 cases of molestation and 12,000 cases of rape were reported in the capital city of New Delhi. As for the other cities, data available for India suggests that well over 80% of sexual crimes go unreported.³

Although sexual violence in many countries remains primarily a legal concern, it is becoming more commonly

perceived as public health problem.⁴ Therefore, sexual assaults create significant health and legislative problems for every society.

Victims of sexual assault might sustain extragenital physical injury. This can occur either during resistance or as a deliberate measure by the assailant. It is also possible that genital injuries are produced during forceful sexual intercourse. Interestingly, it is usually cited in references that injuries among victims of sexual assault are not severe, and rarely will produce severe consequences and/or disabilities.⁵ On the contrary, there are numerous negative effects of sexual violence that may affect victims' health. They include pregnancy, spread of sexually transmissible diseases, exposure to HIV/AIDS, increased risk for adoption of unacceptable sexual behaviour (e.g. early beginning of sexual activity, multiple sexual partners, etc.), and negative effects on mental health.⁶

Interpretation of injuries to victims of sexual assault and provision of expert opinion on these matters should be regarded as one of the most difficult and controversial aspects in forensic medical practice. The specialist's forensic knowledge is mandatory for the reliable documentation and interpretation of any medical findings. Beside the fact that medicolegal investigation is only a part of investigation in the cases of sexual assault. Unfortunately a large number of medical doctors and the general public have an unrealistic expectations in regards to the extent of the conclusions provided following the victim's medical examination.⁷

2. Methods

We performed a retrospective study of files from the District Court of Belgrade. The files reviewed were cases of sexual offences as defined by Criminal Code of Republic of Serbia that where plead or given a verdict of guilty. Analysis of medical record and other available medical evidence was then performed. The Clinical Injury Extent Score (CIES) was used to qualify the severity of injury⁸ (Table 1).

Table 1
Clinical Injury Extent Score (CIES)

Clinical injury score	Criteria
0 (no injury)	No documented signs or symptoms of injury
1 (mild injury)	Redness or tenderness only or minor injuries with no expected impact on physical function
2 (moderate injury)	Injury or injuries expected to have some impact on function and/or more than redness or tenderness of the genitalia (including anal and rectal areas), e.g., lacerations, bruising, abrasions and/or injuries requiring treatment (lacerations requiring suturing, wounds requiring dressings) and/or bruising of the head and neck expected to result in significant headache
3 (severe injury)	Head injury with concussion and/or evidence of attempted strangulation and/or other major injuries, e.g., fracture, internal organ contusion

3. Results and discussion

A total of 113 court cases were analyzed for the five years period; 1995–1999. All victims (113) were female, at average 24.08 years old (range 5–80 years).

Medical examination in majority of the cases (84%) took place within 72 hours post-assault, while approximately in half of the cases (52%) examination was completed on the day of assault. Clinicians, mostly gynaecologists, performed the examination. Only in few cases was a specialist in forensic medicine involved. Therefore, owing to lack of forensic skills, certain confusions in terminology were noted in medical records subjected to review. Clinicians are using the term “contusion” to record tenderness and painful sensation over certain body region without describing obvious morphological elements of particular mechanical injuries (e.g. skin discoloration that is associated with skin bruising or disruption of outer skin layers as with abrasions). Due to delayed referral, body examination was not conducted in 12 victims (10.6%). Other victims underwent complete body examination that reveals at least one extragenital injury in 64 cases (63.4%), no extragenital injuries in 36 victims (35.6%), whereas for one victim medical records were inconclusive. Occurrence of extragenital injuries among victims of sexual assault has been reported in range from 20 to 50% depending on research sample and study design.^{9,10}

Five body regions were defined (scalp, face, neck, torso, and extremities) for analysis of extragenital injury presence and severity. Depending on the findings, three categories were defined – injury present, no injury, and inconclusive (Fig. 1).

Injuries were most frequently located on extremities (32%), face (23%), and torso (7%), whereas other regions were less frequently affected – scalp in 5.3%, and neck in 7.1%. Inconclusive findings were mostly related to scalp injuries (8%), whereas none of the findings provided for neck injuries fall into this category.

Bruises were the most frequently observed type of injuries (50%) regardless of body region, excluding neck. Abrasions were somewhat less frequently present, while only two victim sustained lacerations. “Contusions”, describing mostly patients' complaints on tenderness and painful sen-

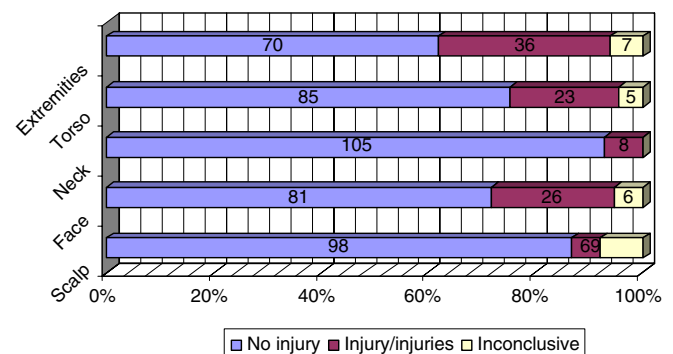


Fig. 1. Occurrence and distribution of injuries.

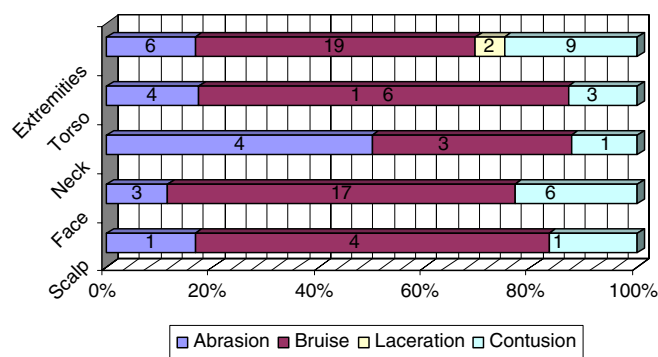


Fig. 2. Type of injuries.

sation, without obvious morphological correlates, was less frequently encountered as well (Fig. 2).

In reports of similar studies bruises are also the most frequent type of noted injury (62.5%), while the other forms of injury, namely lacerations and fractures were less frequently observed (18.6% and 1.5%, respectively).¹¹ In our study group no injuries to internal organs or bone fractures were observed.

There were no more than three injuries, regardless of their type, observed per body region with exception of extremities when multiple injuries were present. Published data on similar studies suggests that physical injuries in victims of sexual assault are predominantly localized on face, scalp and neck, less frequently (in about 33%) on extremities, whereas injuries located on torso are observed in 15% of cases.^{9,10}

Although insufficient quality of medical records made certain constraints, the severity of injuries were rated according to the Clinical Injury Extent Score (CIES) (Fig. 3). Majority of victims (44%) sustained light injuries (CIES-1), 18% has moderate injuries (CIES-2), whereas severe injuries (CIES-3) has been documented only in one victim of sexual assault. None of the victims included in this study had injuries requiring hospital treatment. Therefore all victims were discharged following examination. This observation is consistent with published data that in

less than 1% of victims of sexual assault are subjected to serious acute physical injury requiring hospital treatment.⁵ It is reported in related studies that extragenital trauma (CIES-0) is less frequent (12.1%) while the other categories were proportionally more common (CIES-1 23.8%; CIES-2 57.4%; CIES-3 6.7%).¹² In general, severe injuries are present in approximately 5% of victims of sexual assault¹³ while 0.1% of injuries sustained in sexual assault are lethal.¹⁴ A study on female victims' homicide over 20 years in Institute of Forensic Medicine in Belgrade failed to reveal cases of sexual assault homicides.¹⁵ The authors were not able to identify studies to explore the relationship between general injuries in victims of sexual assault and legal outcomes. However, there is published data on the correlation of anogenital trauma severity and legal case outcomes.¹⁶ Our study was not designed to test if the correlation exists between type, distribution and severity of body injuries and legal case result.

4. Conclusion

Extragenital physical injuries can result from sexual assault. In our study at least one extragenital injury was present in 64 cases (63.4%). Body injuries were predominantly located on extremities and face, predominantly in form of bruises (50%), while other types of blunt trauma were less frequently observed. Light injuries (CIES-1) were prevailing over moderate (CIES-2), and severe injuries (CIES-3) among the victim of sexual assault in our study. It might be interesting for future research to look into the association of body injuries type, distribution and severity in victims of sexual violence and legal outcome of the cases.

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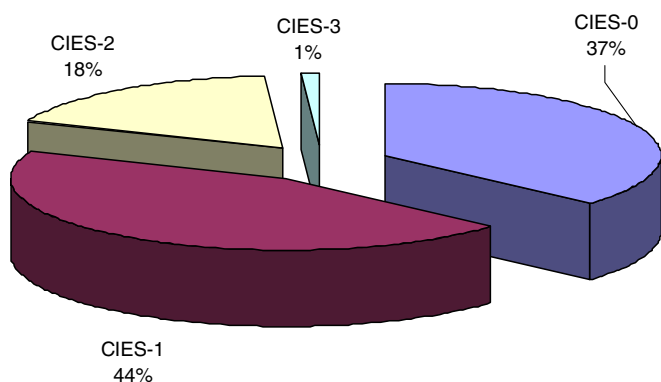


Fig. 3. Severity of injuries–Clinical Injury Extent Score (CIES).

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